

**1.1**  
**Adding, Subtracting & Multiplying Polynomials**  
**(A.APR.1)**

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify each expression by adding or subtracting. Show work!!**

1.  $(-8x^2 + 2x + 1) + (10x^2 - x)$

2.  $(9x^2 - 7x + 12) + (-5x^2 + 2x)$

3.  $(5x^2 + 7x - 8) - (7x^3 + 2x^2 + 3x)$

4.  $(4x^3 + 3x^2 + 5x) - (8x^2 - x + 11)$

5.  $(6x^2 + 8x - 2) + (3x^2 - 9x - 4)$

6.  $(-x^2 - 10x + 7) - (-2x^2 + 3x - 1)$

7.  $(x^2 + 4x + 10) + (3x^2 - x - 12)$

8.  $(3x^2 + 7x - 8) - (2x^2 + 2x - 6)$

9.  $(-x^2 - 12x - 29) + (5x^3 + 4x - 7x^2 + 6)$

10.  $(-7x + 3) + (-x^2 + 9x - 1) - (-4x^2 + 12x - 2)$

**Simplify each expression by multiplying. Show work!**

11.  $(x-6)(x+2)$

12.  $(3x+5)(x-9)$

13.  $(5y^2-2y-1)(y+4)$

14.  $(x+4)(2x^2-x+8)$

15.  $(x-2)(x^2+3x+4)$

16.  $(x-1)(x+1)(5x-6)$

**Simplify each expression. Show work!**

17.  $(x+3)(x-7)+(6x^2-7x-12)$

18.  $(x-5)(3x^2+4x-1)-(-x^3+7x^2-6)$

19.  $(x+3)(x-7)(x+1)$

20.  $(2x+4y)(x-2y)(3x+y)$